



PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : David A. Tirrell  
Application No. : 10/015,956  
Filed : December 10, 2001  
For : FUSION PROTEIN MICROARRAYS AND METHODS  
OF USE

Examiner : Agnes B. Rooke  
Art Unit : 1656  
Docket No. : 110197.403  
Date : April 3, 2007

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

Commissioner for Patents:

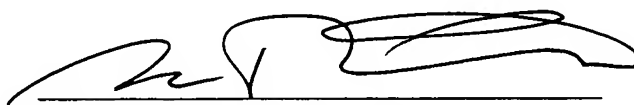
In accordance with 37 CFR 1.56 and 1.97 through 1.98, applicant wishes to make known to the U.S. Patent and Trademark Office the references set forth on the attached Information Disclosure Statement. Copies of cited U.S. patents and published patent applications are not required and accordingly have not been provided. Copies of any other cited references are enclosed. As to any reference cited, applicant does not admit that it is "prior art" under 35 U.S.C. §§ 102 or 103, and specifically reserves the right to traverse or antedate any such reference, as by a showing under 37 CFR 1.131 or other method. Although the aforesaid references are made known to the Patent and Trademark Office in compliance with applicant's duty to disclose all information he/she is aware of which is believed relevant to the examination of the above-identified application, applicant believes that his/her invention is patentable.

Please acknowledge receipt of this Information Disclosure Statement and kindly make the cited references of record in the above-identified application.

Applicant believes this Information Disclosure Statement has been timely filed, however, the Director is authorized to charge any fee due by way of this Information Disclosure Statement to our Deposit Account No. 19-1090.

Respectfully submitted,

Seed Intellectual Property Law Group PLLC

A handwritten signature in black ink, appearing to read 'William T. Christiansen', is written over a horizontal line.

William T. Christiansen, Ph.D.  
Registration No. 44,614

WTC/MKK:ja

Enclosures:

Information Disclosure Statement  
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U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
110197.403APPLICATION NO.  
10/015,956INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)

APPLICANT

David A. Tirrell et al.

FILING DATE

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GROUP ART UNIT

1656

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA						

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION
			YES NO
AB			

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AC	Caldwell, S., et al., "Limits of diffusion in the hydrolysis of substrates by the phosphotriesterase from <i>Pseudomonas diminuta</i> ," <i>Biochemistry</i> , 30(30):7438-44, July 30, 1991.
AD	Drmanac, R., et al., "cDNA screening by array hybridization," <i>Methods Enzymol.</i> , 303:165-78, 1999.
AE	Ekins, R., et al., "Multianalyte microspot immunoassay--microanalytical "compact disk" of the future," <i>Clin Chem.</i> , 37(11):1955-67, November 1991.
AF	Hentz, N., et al., "Bifunctional fusion proteins of calmodulin and protein A as affinity ligands in protein purification and in the study of protein-protein interactions," <i>Anal Chem.</i> , 68(22):3939-44, November 15, 1996.
AG	Khrapko, K., et al., "A method for DNA sequencing by hybridization with oligonucleotide matrix," <i>DNA Seq.</i> , 1(6):375-88, 1991.
AH	Krejchi, M., et al., "Chemical sequence control of beta-sheet assembly in macromolecular crystals of periodic polypeptides," <i>Science</i> , 265(5177):1427-32, September 2, 1994.
AI	Lemmo, A., et al., "Inkjet dispensing technology: applications in drug discovery," <i>Curr Opin Biotechnol.</i> , 9(6):615-7, December 1998.
AJ	Ljungquist, C., et al., "Immobilization and affinity purification of recombinant proteins using histidine peptide fusions," <i>Eur J Biochem.</i> , 186(3):563-9, December 22, 1989.
AK	Matson, R., et al., "Biopolymer synthesis on polypropylene supports. I. Oligonucleotides," <i>Anal Biochem.</i> , 217(2):306-10, March 1994.
AL	Messing, R., ed., <i>Immobilized Enzymes for Industrial Reactors</i> , Academic Press, New York, 1975, Ch. 5, "Immobilization by Adsorption and Inorganic Bridge Formation," pp. 79-98.

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP.609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

<b>U.S. DEPARTMENT OF COMMERCE</b> <b>PATENT AND TRADEMARK OFFICE</b>				ATTY. DOCKET NO. 110197.403		APPLICATION NO. 10/015,956	
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	BA						
<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY		TRANSLATION	
						YES	NO
	BB						
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
	BC	McGrath, K., et al., "Genetically directed syntheses of new polymeric materials, expression of artificial genes encoding proteins with repeating -(AlaGly) <sub>3</sub> ProGluGly- elements," <i>J. Am. Chem. Soc.</i> , 114:727-733, 1992.					
	BD	Mulbry, W., et al., "Parathion hydrolase specified by the Flavobacterium opd gene: relationship between the gene and protein," <i>J Bacteriol.</i> , 171(12):6740-6, December 1989.					
	BE	Okamoto, T., et al., "Microarray fabrication with covalent attachment of DNA using bubble jet technology," <i>Nat Biotechnol.</i> , 18(4):438-41, April 2000.					
	BF	Omburo, G., et al., "Characterization of the zinc binding site of bacterial phosphotriesterase," <i>J Biol Chem.</i> 267(19):13278-83, July 5, 1992.					
	BG	Ong, E., et al., "Enzyme immobilization using the cellulose-binding domain of a <i>cellulomonas fimi</i> exoglucanase," <i>Bio/technology</i> , 7:604-607, 1989.					
	BH	Piesecki, S., et al., "Immobilization of $\beta$ -Galactosidase for application in organic chemistry using a chelating peptide," <i>Biotechnology and Bioengineering</i> , 42:178-184, 1993					
	BI	Sassenfeld, H., "Engineering proteins for purification," <i>Trends Biotechnol.</i> , 8(4):88-93, April 1990.					
	BJ	Schena, M., et al., "Quantitative monitoring of gene expression patterns with a complementary DNA microarray," <i>Science</i> , 270(5235):467-70, October 20, 1995.					
	BK	Stempfer, G., et al., "A fusion protein designed for noncovalent immobilization: stability, enzymatic activity, and use in an enzyme reactor," <i>Nat Biotechnol.</i> , 14(4):481-4, April 1996.					
	BL	Wierzbza, A., et al., "Production and properties of a bifunctional fusion protein that mediates attachment of vero cells to cellulosic matrices," <i>Biotechnology and Bioengineering</i> , 47:147-154, 1995.					
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